DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/Ala Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-010796 Address: 333 Burma Road **Date Inspected:** 08-Dec-2009

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Tower Components

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 11

This QA Inspector randomly observed the following work in progress in Bay 11:

FCAW welding of weld joint WSTL4-2I/L-105 located inside PCMK west tower, lift 4, skin A to top of 135M double diaphragm. Welder was identified as 049541. ZPMC QC was identified as CWI You Qi Guo (QC1). The welding variables recorded by QC1 appeared to comply with WPS-B-T-4333-TC-P4-F. Also at this location and appearing to be monitoring the welding operation was ABF Representative Wang Zhong Yuan.

FCAW welding of weld joint WSTL4-2H/L-32 located inside PCMK west tower, lift 4, skin A to bottom of 131M double diaphragm. Welder was identified as 040704. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Shao Hai Long, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-4333-TC-P4-F.

Bay 10

This QA Inspector randomly observed the following work in progress in Bay 10:

FCAW welding of weld joint NSTL4-3F/L-125 located inside PCMK north tower, lift 4, corner assembly at skins

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B/C corner at 123M elevation. Welder was identified as 053116. ZPMC QC was identified as CWI Tu Jun (QC2). The welding variables recorded by QC2 appeared to comply with WPS-B-T-2132.

FCAW welding of weld joint NSTL4-3K/L-2 located inside PCMK north tower, lift 4, corner assembly at skins C/D corner at 143M elevation. Welder was identified as 052075. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2132.

FCAW welding of weld joint NSTL4-3C/L-21 located inside PCMK north tower, lift 4, corner assembly at skins C/D corner at 119M elevation. Welder was identified as 057244. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2132.

FCAW welding of weld joints NSTL4-3F/L-42, 43, 44, 46 located inside PCMK north tower, lift 4, skin A, fit lugs to bottom of 123M double diaphragm and to skin A stiffeners. Welder was identified as 054069. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-4331-TC-P4-F for welds 42, 46 and WPS-B-T-2332-TC-P4-F for welds 43, 44.

FCAW welding of weld joint NSTL4-3H/L-111 located inside PCMK north tower, lift 4, skin A, fit lug to top of 131M double diaphragm. Welder was identified as 201825. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-4331-TC-P4-F.

FCAW welding of weld joints SSTL4-1K/L-22, 24 located inside PCMK south tower, lift 4, skin E, fit lug to bottom of 143M double diaphragm and to skin E stiffener. Welder was identified as 054069. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-4331-TC-P4-F for weld 22 and WPS-B-T-2332-TC-P4-F for weld 24. Also at this location and appearing to be monitoring the welding operation was ABF Representative Li Nan.

FCAW welding of weld joints SSTL4-1J/L-20, 24 located inside PCMK south tower, lift 4, skin E, fit lug to bottom of 139M double diaphragm and to skin E stiffener. Welder was identified as 201825. ZPMC QC was identified as CWI Gong Liang Zhu (QC3). Assisting QC3 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Guo Zhi Chun, who was not a CWI. The welding variables recorded by QC3's assistant appeared to comply with WPS-B-T-4331-TC-P4-F for weld 20 and WPS-B-T-2332-TC-P4-F for weld 24. Also at this location and appearing to be monitoring the welding operation was ABF Representative Li Nan.

FCAW welding of weld joints SSTL4-1I/L-89, 91 located inside PCMK south tower, lift 4, skin E, fit lug to top of 135M double diaphragm and to skin E stiffener. Welder was identified as 050041. ZPMC QC was identified as CWI QC3. Assisting QC3 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Guo Zhi Chun, who was not a CWI. The welding variables recorded by QC3's assistant appeared to comply with WPS-B-T-4331-TC-P4-F for weld 89 and WPS-B-T-2332-TC-P4-F for weld 91. Also at this location and appearing to be monitoring the welding operation was ABF Representative Li Nan.

FCAW welding of weld joints SSTL4-1H/L-87, 91 located inside PCMK south tower, lift 4, skin E, fit lug to top of 131M double diaphragm and to skin E stiffener. Welder was identified as 057244. ZPMC QC was identified as CWI QC3. Assisting QC3 at this location and appearing to be monitoring the welding and recording data was

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ZPMC QC Guo Zhi Chun, who was not a CWI. The welding variables recorded by QC3 's assistant appeared to comply with WPS-B-T-4331-TC-P4-F for weld 87 and WPS-B-T-2332-TC-P4-F for weld 91. Also at this location and appearing to be monitoring the welding operation was ABF Representative Li Nan.

FCAW welding of weld joints SSTL4-1F/L-92, 93 located inside PCMK south tower, lift 4, skin E, fit lug to top of 123M double diaphragm and to skin E stiffener. Welder was identified as 052075. ZPMC QC was identified as CWI QC3. Assisting QC3 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Guo Zhi Chun, who was not a CWI. The welding variables recorded by QC3 's assistant appeared to comply with WPS-B-T-4331-TC-P4-F for weld 89 and WPS-B-T-2332-TC-P4-F for weld 91. Also at this location and appearing to be monitoring the welding operation was ABF Representative Li Nan.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet, George	Quality Assurance Inspector
Reviewed By:	Dawson,Paul	QA Reviewer